

Pixels for CDF in Run IIb

Mar 22, 2001 meeting

- Charge from directorate (2 days ago)
 - April PAC: written document with conceptual design + resource loaded schedule/cost
 - May: PPD Review
 - June PAC: document addressing PPD/PAC comments
 - Fall: design report to be reviewed before the Fall PAC
- Mtg w/ Al, Fraco, Michael, Joe (yesterday)
 - Pixels not part of conceptual design
 - Strips now address pattern recognition
 - Strips don't have technical challenges of material and cooling to the same degree
 - Tone was positive towards our efforts in the context of providing a possible technology that could help make the best RunIIb detector
 - Strip pattern recognition to be demonstrated
 - Pixels possible as fall back plans for CDF
 - Cost of two technologies is high...need to move forward as a collaboration for RunIIb plans
- This is new -- wait to see how it settles down
 - Some discussion at tonight's executive board mtg
 - Proceed w/agenda and discuss this further

Update

- FPIX chip
 - Nothing new on design
 - April/May SEU testing at IU cyclotron
- Sensors
 - Non-disclosure agreement being drafted by ATLAS pixel steering group. Next stop would to FNAL legal dept. ATLAS requests \$60K for this – rad hard vertex group would get prototype sensors in return
- Mechanical
 - Mike Hrycyk has done some 3D modelling of eight-fold geometry with double-128 wide geometry (256 rows on 50 μm pitch)
 - Pixels as the pointing layer (3rd layer out) at 2.75 cm radius in 12-fold ATLAS sensor (double-160) geometry.

Agenda

- Physics / Tracking studies
Weiming and Petar
- Latest ideas on replacement strips
Joe Incandela
- Recent progress on diamond R&D
Bob Stone
- Other pixel updates and discussion